REMARKS

This response addresses the issues raised by the Examiner in the Office Action mailed November 18, 2004. Initially, Applicants would like to thank the Examiner for the careful consideration given in this case. The Claims were 1-6. Claims 1-3 and 5-6 have been currently amended and Claim 4 has been canceled. No new matter has been added by this amendment. Thus, Claims 1-3 and 5-6 are pending in this case all to more clearly and distinctly claim Applicants' invention. In view of the above amendments and the following remarks, Applicants submit that the presently pending claims are in condition for allowance and notification of such is respectfully requested.

Specification

The specification has been amended to make certain terms consistent and make the specification consistent with the currently amended claims. No new matter has been added by the amendments to the specification. Applicants respectfully request that amendments to the specification be entered by the Examiner.

Rejection Under 35 U.S.C. § 112, First Paragraph

The Examiner rejects Claims 1-6 under 35 U.S.C. § 112, first paragraph, as failing to provide enablement for all optical microscopes. Applicants respectfully traverse this rejection.

Solely to advance prosecution of this application, Applicants have currently amended Claims 1-3 and 5-6 to address the concerns of the Examiner. Applicants have amended Claims 1-6 so that the test preparation is for fluorescence microscopes. Therefore, this rejection is rendered moot. Withdrawal of the present rejection is respectfully requested.

The Examiner rejects Claims 1-6 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner states that the specification teaches the use of glutardialdehyde as the single, non-exemplified fluorescence-inducing compound and does not provide sufficient description of the genus or constitute a representative number of species, both of which are required to claim all fluorescence-inducing compounds. Applicants respectfully traverse this rejection.

Solely to advance prosecution of this application, Applicants have currently amended Claims 1-3 and 5-6 to address the concerns of the Examiner. Applicants have amended

Claim 1 to include that the cell structure is fixated using glutardialdehyde. Therefore, this rejection is rendered moot. Withdrawal of the present rejection is respectfully requested.

The Examiner also rejects Claims 1-6 under 35 U.S.C. § 112, first paragraph, as failing to provide enablement for induced fluorescence by any compound. Applicants respectfully traverse this rejection.

Solely to advance prosecution of this application, Applicants have currently amended Claims 1-3 and 5-6 to address the concerns of the Examiner. Applicants have amended Claim 1 to include that the cell structure is fixated using glutardialdehyde. Therefore, this rejection is rendered moot. Withdrawal of the present rejection is respectfully requested.

The Examiner rejects Claims 1-6 under 35 U.S.C. § 112, first paragraph, because the specification while being enabling for exhibiting fluorescence excitation at 540 nm does not reasonably provide enablement for exhibiting fluorescence excitation at any wavelength of 100 nm or greater. Applicants respectfully traverse this rejection.

Solely to advance prosecution of this application, Applicants have currently amended Claims 1-3 and 5-6 to address the concerns of the Examiner. Applicants have amended Claim 1 to include that the freely selectable fluorescence excitation in a wavelength region has a spectral range of 100 nm or greater. In other words, the 100 nm range refers to the spectral range of the fluorescence that can be used to detect fluorescence signals. Generally, one of the main disadvantages of fluorescence preparation is that for every type of dye there exists only a narrow spectral range in which the specimen can be excited by light and only a limited spectral region in which the fluorescence emission is carried out. See paragraph [0007]. The narrow spectral range is usually about 10 nm in magnitude on the wavelength scale. See paragraph [0007]. One of the purposes of the present invention is to provide a broad range of fluorescence excitation and emission in 100 nm range or more, which can be achieved by providing cell structures that are fixated on the object carrier using glutardialdehyde. See paragraph [00097]. Therefore, this rejection is rendered moot. Withdrawal of the present rejection is respectfully requested.

Rejection Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejects Claims 1-6 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. More specifically, the Examiner states that the terms

"cell bond", "under treatment by a compound", "a freely selectable fluorescence excitation in a wavelength region with a breadth of the order of 100 nm or greater", and "the cell bond has a dense structure over the visual field of the microscope" are not clear. Applicants respectfully traverse this rejection.

To advance prosecution of this application, Applicants have currently amended Claims 1-3 and 5-6 to address the concerns of the Examiner. The terms "cell bond", "fixed under treatment of by a compound", "a freely selectable fluorescence excitation in a wavelength region with a breadth of the order of 100 nm or greater" and "the cell bond has a dense structure over the visual field of the microscope" have been replaced with the terms "cell structure", "fixed by a compound", "a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater" and "the cell structure densely covers the entire visual field of the microscope", respectively. Therefore, this rejection is rendered moot. Withdrawal of the present rejection is respectfully requested.

Rejection Based On Frank In Light Of DakoCytomation Under 35 U.S.C. § 102 (b)

The Examiner rejects Claims 1-5 under 35 U.S.C. § 102 (b) as being anticipated by Frank et al. ("Frank") in light of DakoCytomation. Applicants respectfully traverse this rejection.

For a rejection to be sustained under 35 U.S.C. § 102 (b) each an every element of the claimed invention must be disclosed or cited in the prior art reference. The present invention discloses a test preparation for fluorescence microscopes that tests function and/or performance of the microscopes. In the present invention, the test preparation includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater. Here, the cell structure is fixated using glutardialdehyde. One of the main purposes of the present invention is to provide a broader spectral range on the wavelength scale in which excitation and emission of fluorescence can be achieved. See paragraph [0009]. The Applicants have surprisingly found that cell structures that are fixated on the object carrier using glutardialdehyde exhibit a very broad fluorescence spectrum. See paragraph [0009].

In contrast, Frank discloses using glutardialdehyde for the imaging of biomaterial for scientific purposes. More specifically, Frank also discloses a method for detection and quantification of platelet/material interactions. See Abstract. Frank does not even mention any information about the quality, function, or performance of his microscope. This is unlike

the present invention that discloses a test preparation for fluorescence microscopes to test function and/or performance of the microscopes. In addition, Frank does not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater.

DakoCytomation discloses a Fluorescence Mounting Medium which retards the fading of fluorescence allowing the specimens to be reviewed for a longer period of time. See page 1. However, DakoCytomation does not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater.

Since Frank and DakoCytomation do not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater, Frank and DakoCytomation do not disclose each and every claim element of the claimed invention. Thus, Applicants respectfully requests that the rejection under 35 U.S.C. § 102 (b) be reconsidered and withdrawn.

Rejection Based On Collins Under 35 U.S.C. § 102 (b)

The Examiner rejects Claims 1-4 under 35 U.S.C. § 102 (b) as being anticipated by Collins et al. ("Collins"). Applicants respectfully traverse this rejection.

For a rejection to be sustained under 35 U.S.C. § 102 (b) each an every element of the claimed invention must be disclosed or cited in the prior art reference. As stated above, the present invention discloses a test preparation for fluorescence microscopes.

In contrast, Collins discloses the properties induced by glutardialdehyde fixation. For example, Collins discloses that the enhanced fluorescence is maximally excited at 540 nm and fluorescence emission peaks at 560 nm. See Abstract. However, Collins, does not even mention a test preparation of a fluorescence microscope including an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater. Moreover, Applicants also agree with the Examiner that Collins does not explicitly state that the tissue and gelatin films were arranged

on an object carrier. Accordingly, Collins does not disclose each and every claim element of the claimed invention. Therefore, Applicants respectfully requests that the rejection under 35 U.S.C. § 102 (b) be reconsidered and withdrawn.

Rejection Based On Molecular Probes "MitoTracker and MitoFluor Mitochondrion-Selective Probes" Data Sheet and Molecular Probes "ER-Tracker Blue-White DPX" Data Sheet Under 35 U.S.C. § 102 (b)

The Examiner rejects Claims 1-3 under 35 U.S.C. § 102 (b) as being anticipated by Molecular Probes "MitoTracker and MitoFluor Mitochondrion-Selective Probes" Data Sheet ("MitoTracker") and Molecular Probes "ER-Tracker Blue-White DPX" Data Sheet ("ER-Tracker"). Applicants respectfully traverse this rejection.

For a rejection to be sustained under 35 U.S.C. § 102 (b) each an every element of the claimed invention must be disclosed or cited in the prior art reference. As stated above, the present invention discloses a test preparation for fluorescence microscopes.

Both MitoTracker and ER-Tracker datasheets refer to special dyes. However, both MitoTracker and ER-Tracker do not disclose a test preparation of a fluorescence microscope including an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater. Accordingly, MitoTracker and ER-Tracker do not disclose each and every claim element of the claimed invention. Therefore, Applicants respectfully requests that the rejection under 35 U.S.C. § 102 (b) be reconsidered and withdrawn.

Rejection Based On Collins In View Of DakoCytomation Under 35 U.S.C. § 103(a)

The Examiner rejects Claims 1-5 under 35 U.S.C. § 103 (a) as being unpatentable over Collins et al. ("Collins") in view of DakoCytomation. Applicants respectfully traverse this rejection.

To establish obviousness of a claimed invention, all claim elements must be disclosed, taught or suggested by the prior art. As stated above, the present invention discloses a test preparation for fluorescence microscopes.

As discussed above, Collins discloses the properties induced by glutardialdehyde fixation. For example, Collins discloses that the enhanced fluorescence is maximally excited at 540 nm and fluorescence emission peaks at 560 nm. See Abstract. However, Collins, does not even mention a test preparation of a fluorescence microscope including an object carrier

and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater. Moreover, Applicants also agree with the Examiner that Collins does not explicitly state that the tissue and gelatin films were arranged on an object carrier or teach the use of an anti-fading reagent.

DakoCytomation discloses a Fluorescence Mounting Medium which retards the fading of fluorescence allowing the specimens to be reviewed for a longer period of time. See page 1. However, DakoCytomation does not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater.

Both Collins and DakoCytomation does not teach or suggest a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater. Thus, the Applicants believe that the amended invention is not obvious over the teaching of Collins in view of DakoCytomation since Collins and/or DakoCytomation do not teach, disclose or suggest the present claims. Moreover, one skilled in the art would find nothing in Collins or DakoCytomation alone or in combination that would disclose, teach or suggest the claimed invention or any reason for making it. Further, there is no motivation to combine the references in such a way to get the claimed invention. Therefore, an obvious rejection under 35 U.S.C. §103 (a) is improper.

Rejection Based On Molecular Probes "MitoTracker and MitoFluor Mitochondrion-Selective Probes" Data Sheet and Molecular Probes "ER-Tracker Blue-White DPX" Data Sheet In View of DakoCytomation Under 35 U.S.C. § 103(a)

The Examiner rejects Claims 1-3 and 5 under 35 U.S.C. § 103 (a) as being unpatentable over Molecular Probes "MitoTracker and MitoFluor Mitochondrion-Selective Probes" Data Sheet ('MitoTracker") and Molecular Probes "ER-Tracker Blue-White DPX" Data Sheet ("ER-Tracker") in view of DakoCytomation. Applicants respectfully traverse this rejection.

To establish obviousness of a claimed invention, all claim elements must be disclosed, taught or suggested by the prior art. As stated above, the present invention discloses a test preparation for fluorescence microscopes.

As stated above, both MitoTracker and ER-Tracker are special dyes. However, both MitoTracker and ER-Tracker does not disclose a test preparation of a fluorescence microscope including an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater.

DakoCytomation discloses a Fluorescence Mounting Medium which retards the fading of fluorescence allowing the specimens to be reviewed for a longer period of time. See page 1. However, DakoCytomation does not disclose a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater.

Since none of the prior art cited discloses a test preparation that includes an object carrier and a biological cell structure arranged on the object carrier, where the cell structure is fixed by a compound which enables a freely selectable fluorescence excitation in a wavelength region with a spectral range of 100 nm or greater, Applicants believe that the amended invention is not obvious over the teaching of MitoTracker and ER-Tracker in view of DakoCytomation since MitoTracker, ER-Tracker and/or DakoCytomation do not teach, disclose or suggest the present claims. Moreover, one skilled in the art would find nothing in MitoTracker, ER-Tracker or DakoCytomation alone or in combination that would disclose, teach or suggest the claimed invention or any reason for making it. Further, there is no motivation to combine the references in such a way to get the claimed invention. Therefore, an obvious rejection under 35 U.S.C. §103 (a) is improper.

Rejection Based On Frank Under 35 U.S.C. §§ 102 (b)/103 (a)

The Examiner rejects Claim 6 under 35 U.S.C. § 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as being obvious over Frank et al. ("Frank"). Applicants respectfully traverse this rejection.

For the same reasons discussed above, Applicants submit that Claim 6 is also patentable by virtue of its dependency from Claim 1. Thus, Applicants request the withdrawal of the rejection of Claim 6 under 35 U.S.C. §§ 102 (b)/103 (a).

Rejection Based On Collins Under 35 U.S.C. §§ 102 (b)/103 (a)

The Examiner rejects Claim 6 under 35 U.S.C. § 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as being obvious over Collins et al. ("Collins").

Applicants respectfully traverse this rejection.

For the same reasons discussed above, Applicants submit that Claim 6 is also patentable by virtue of its dependency from Claim 1. Therefore, Applicants request the withdrawal of the rejection of Claim 6 under 35 U.S.C. §§ 102 (b)/103 (a).

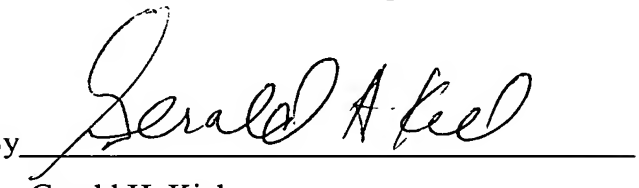
Rejection Based On Molecular Probes "MitoTracker and MitoFluor Mitochondrion-Selective Probes" Data Sheet and Molecular Probes "ER-Tracker Blue-White DPX" Data Sheet Under 35 U.S.C. §§ 102 (b)/ 103 (a)

The Examiner rejects Claim 6 under 35 U.S.C. § 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as being obvious over Molecular Probes "MitoTracker and MitoFluor Mitochondrion-Selective Probes" Data Sheet and Molecular Probes "ER-Tracker Blue-White DPX" Data Sheet. Applicants respectfully traverse this rejection.

For the same reasons discussed above, Applicants submit that Claim 6 is also patentable by virtue of its dependency from Claim 1. Thus, Applicants request the withdrawal of the rejection of Claim 6 under 35 U.S.C. §§ 102 (b)/103 (a).

In view of the remarks presented herein, it is respectfully submitted that the present application is in condition for final allowance and notice to such effect is requested. If the Examiner believes that additional issues need to be resolved before this application can be passed to issue, the undersigned invites the Examiner to contact him at the telephone number provided below.

Dated: February 18, 2004

By 

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